



System-Wide Ecological Conditions
Status Update
July 10, 2008

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Kissimmee Upper Basin and Kissimmee River

- Snail Kites continue to nest in the Upper Basin
- Apple snail studies are being conducted in Lake Kissimmee
- Conditions are typical on the restored river for this time of year
- Wading bird densities have started their summer decline





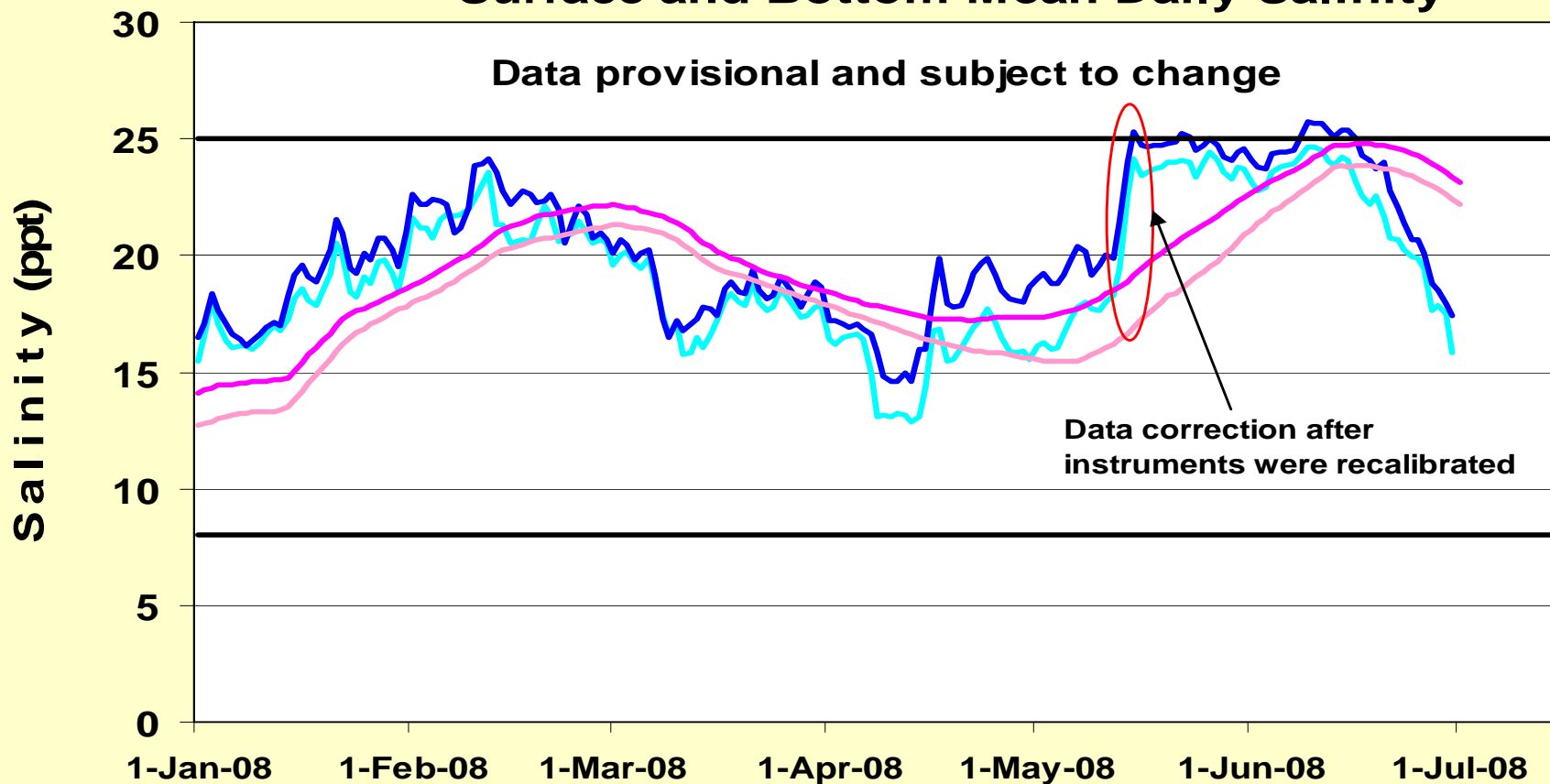
Muck Scraping at Horse Island in Lake Okeechobee





St. Lucie Estuary Salinity: US 1 Bridge

Salinity Envelope Surface and Bottom Mean Daily Salinity



— US1 surface daily mean

— 30 day prior US1 surface daily mean

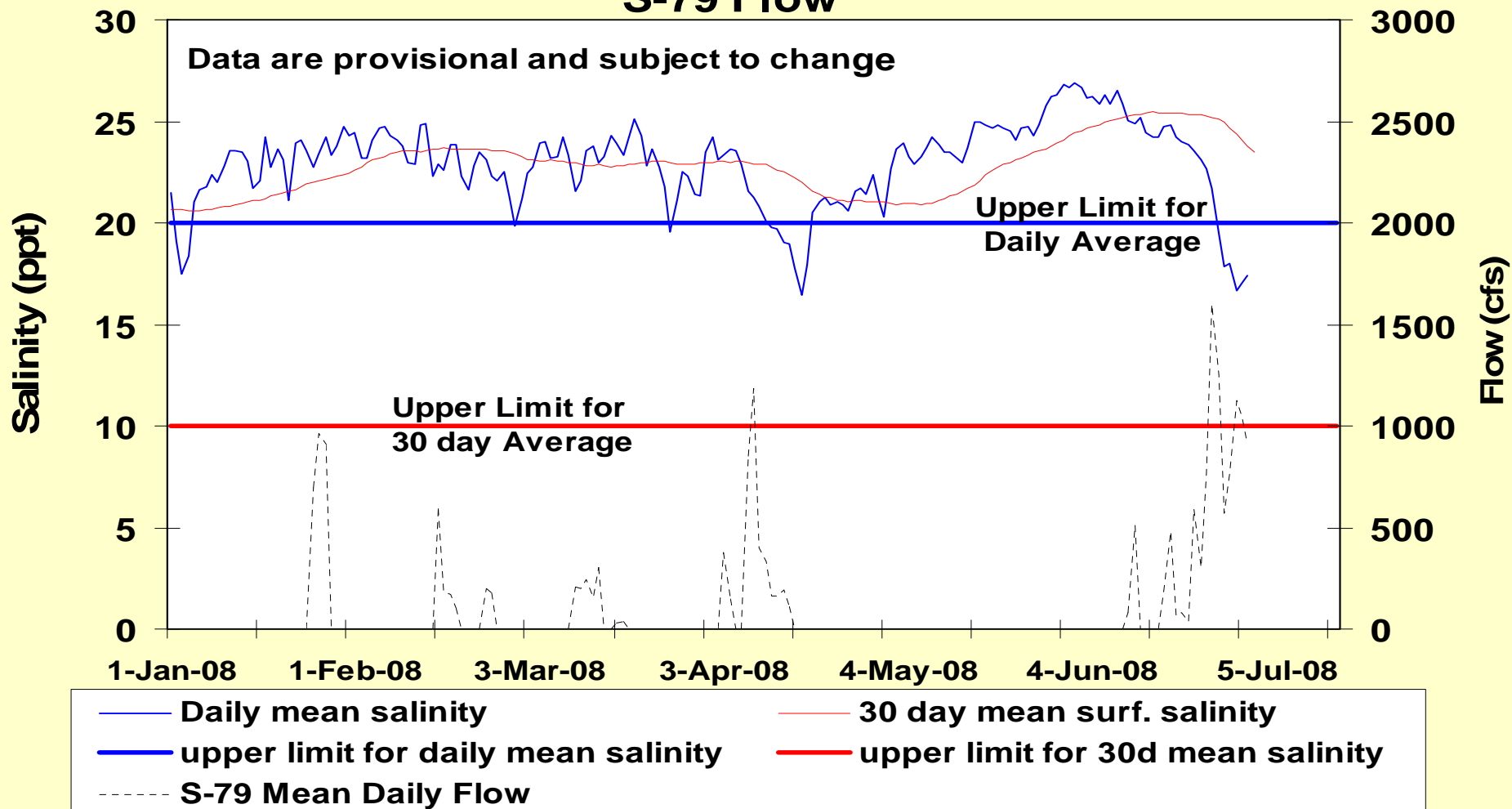
— US1 bottom daily mean

— 30 day prior US1 bottom daily mean



Caloosahatchee Salinity: Ft. Myers

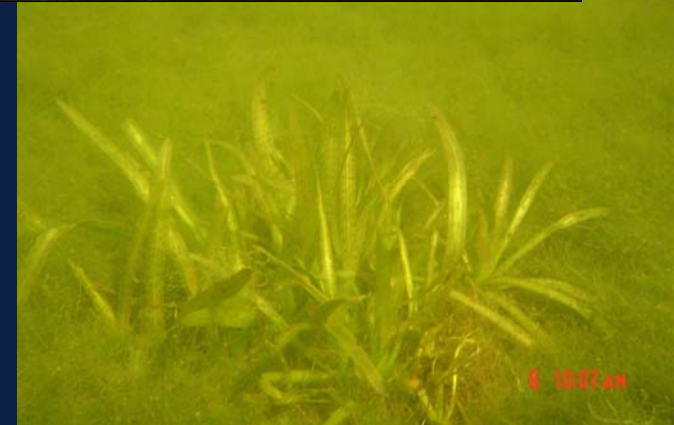
Surface Salinity at Ft. Myers: MFL S-79 Flow





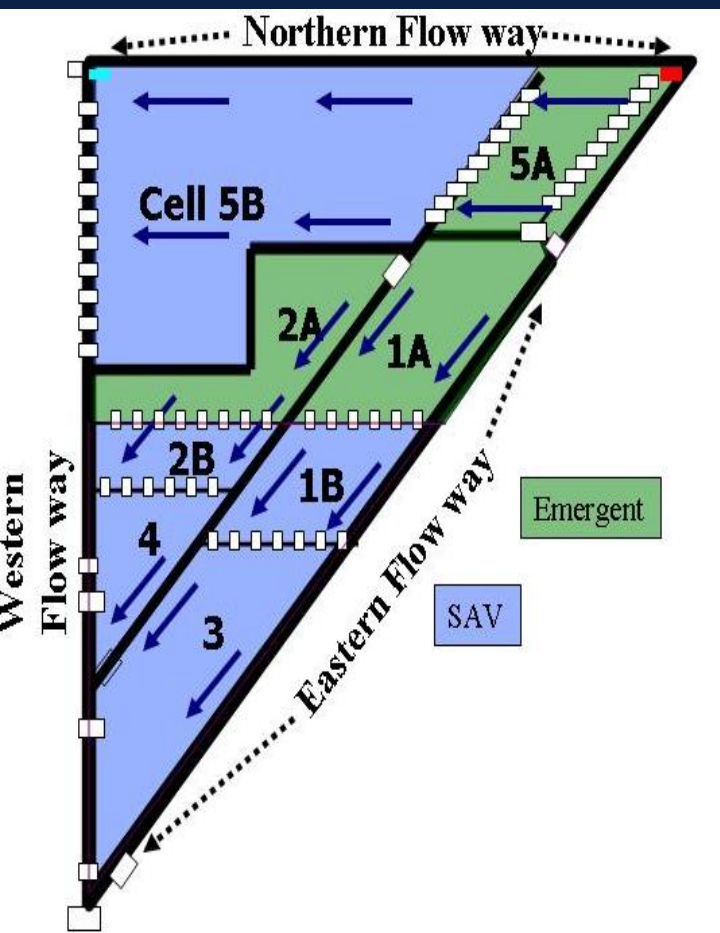
Tape Grass Planting and Algae Blooms in the Caloosahatchee River (C-43)

- **Plants Survived Low Light Conditions During the Blue Green Algae Bloom**
- **Plant Blades are 15-90 cm in Length**
- **Within Cages Aerial Coverage is 60 – 100%**





STA-1 West Rehabilitation Update: Vegetation Condition



Cell 4 condition before rehabilitation



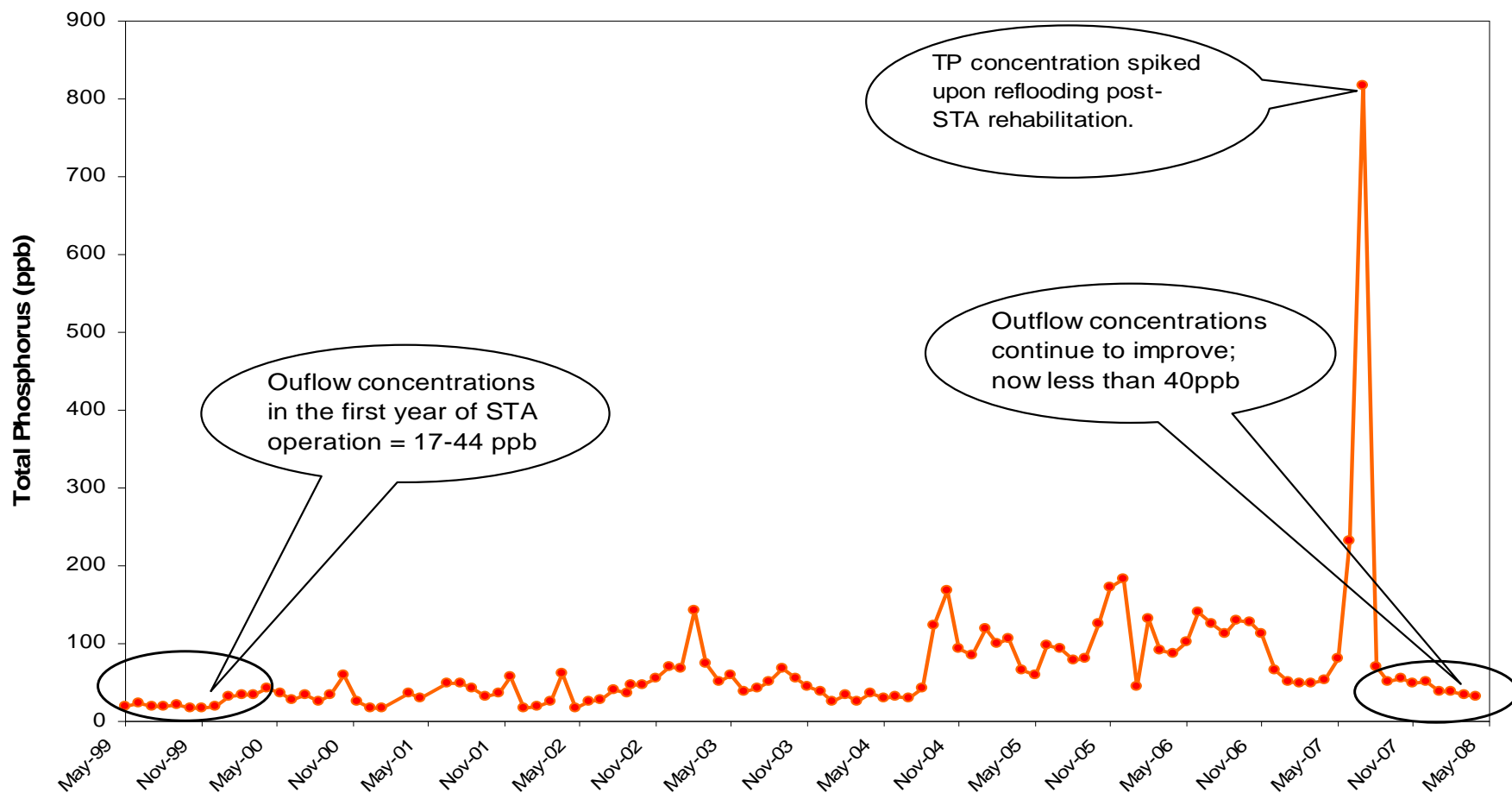
Cell 4 one year after rehabilitation





STA-1 West Performance After 2007 Rehabilitation

STA-1W Outflow (G-251 and G310) Flow-weighted Mean Total Phosphorus Concentration
(Most recent 3 months may contain preliminary data.)





Black-Necked Stilts Nesting in STAs

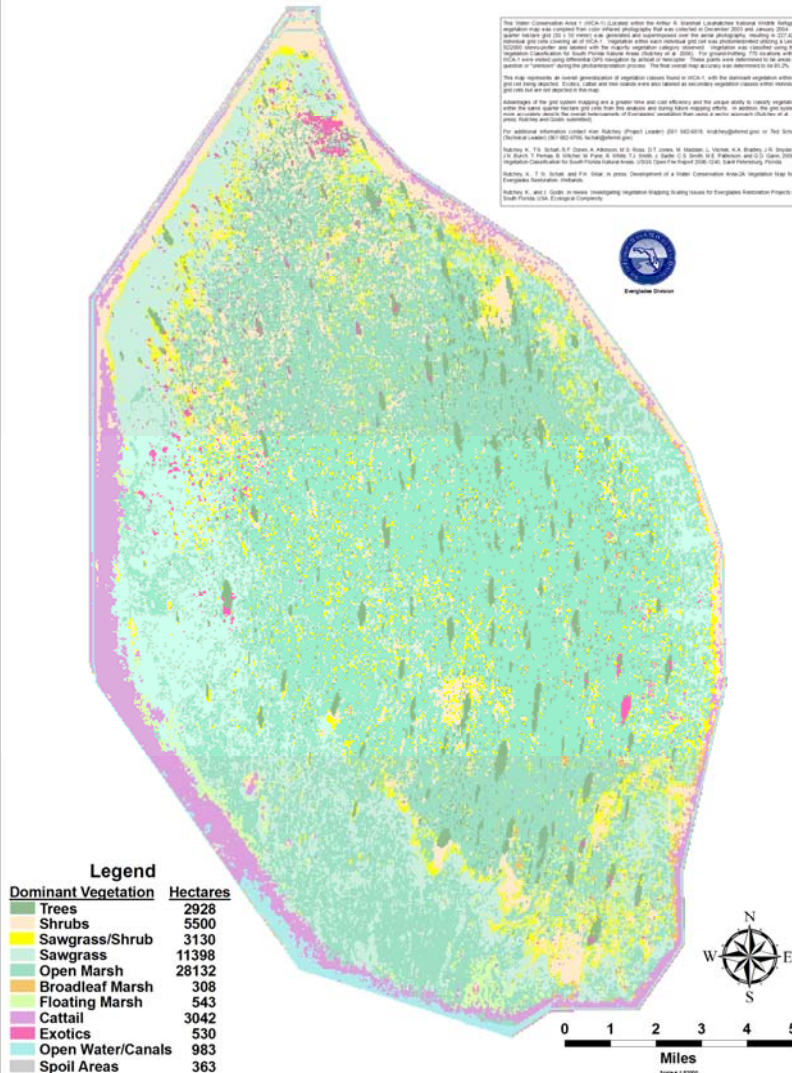
- Stilt nesting is complete
- No water was sent to tide
- No untreated water was sent to the Everglades

Typical Stilt Nest

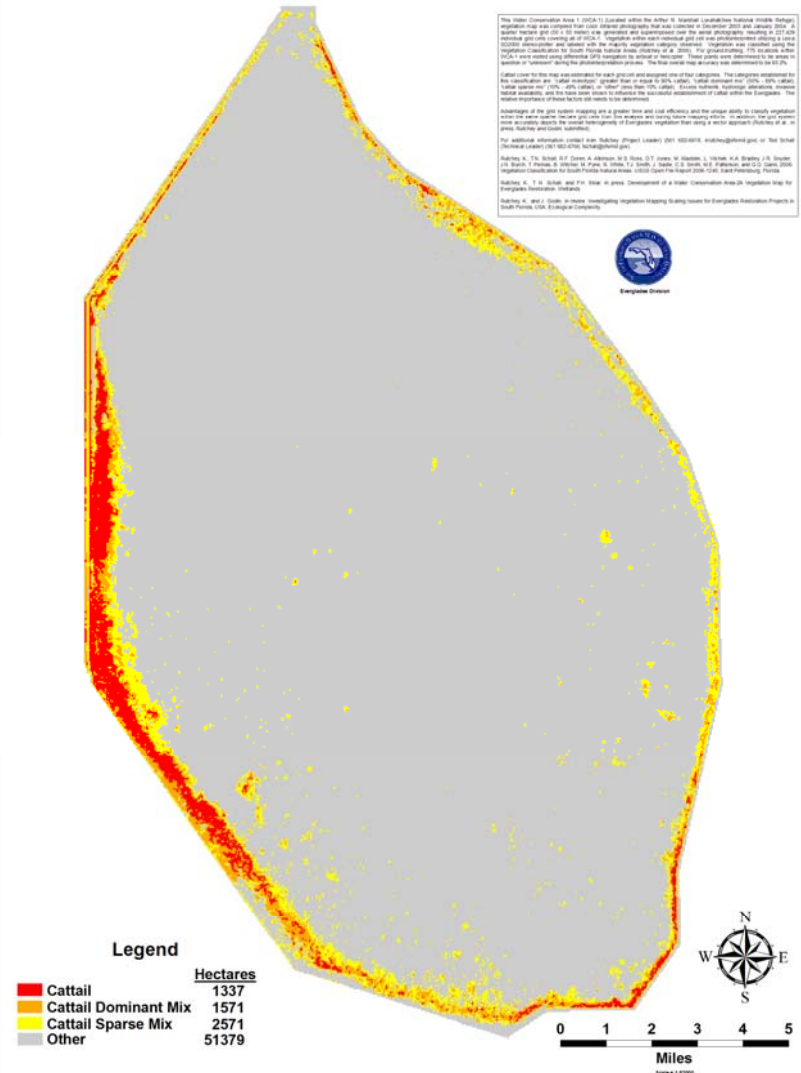


New Water Conservation Area 1 Vegetation Map

WATER CONSERVATION AREA 1 CERP RECOVER VEGETATION MAP



WATER CONSERVATION AREA 1 CERP RECOVER CATTAIL MAP





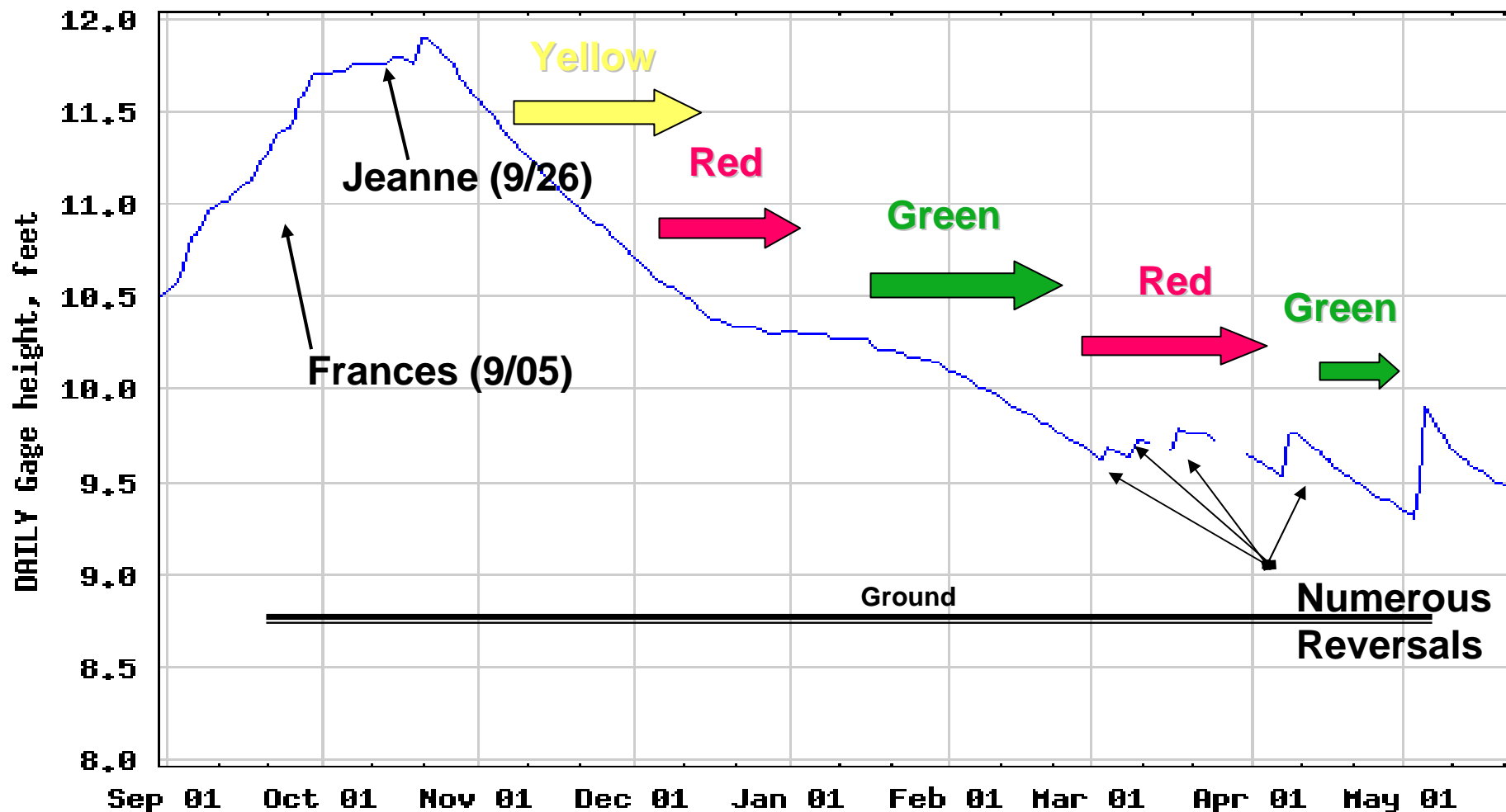
Wading Bird Nesting Success and Water Levels

- Nesting success is tied to both the water depth and rate of decline in water level
- Slow declines in water levels concentrate food for the birds
- Too fast a decline in water level can lead to fish kills
- “Reversals” or upward trends during nesting make foraging more difficult



Hydrologic Recession Trends (09/04-05/06) in Central-WCA-3A

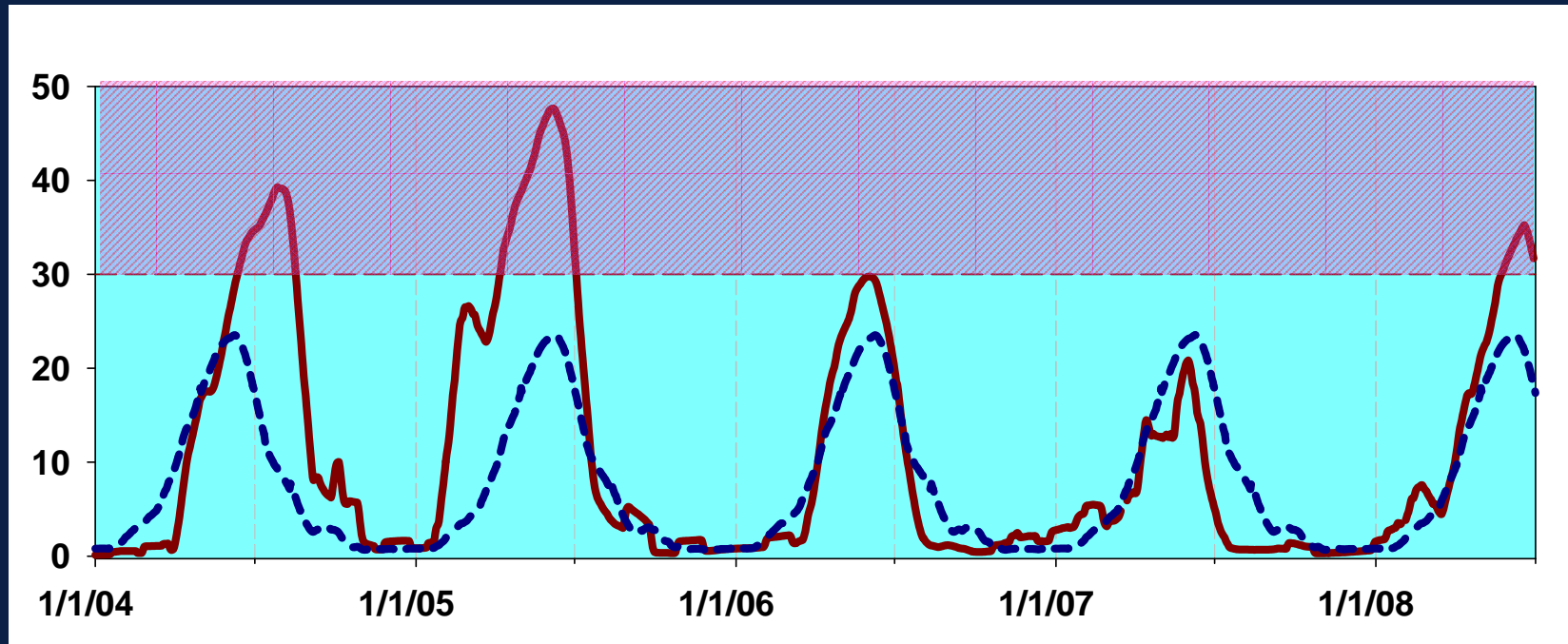
SGS 255828080401301 SITE 64 IN CONSERVATION AREA 3A NR COOPERTOWN F





Tracking salinity in mangrove ponds for Florida Bay MFL criteria

TR 30 d running
average salinity (ppt)



Daily value at Taylor River
– red line

Long-term mean
(WY97 – 07) – dashed line

